

TALON Robot

TALON is a powerful, lightweight, versatile robot designed for missions ranging from reconnaissance to weapons delivery. Its large, quick-release cargo bay accommodates a variety of sensor payloads, making TALON a one-robot solution to a variety of mission requirements.

Built with all-weather, day/night and amphibious capabilities standard, TALON can operate under the most adverse conditions to overcome almost any terrain. The portable robot is controlled through either a two-way RF or F/O line from a portable or wearable

Operator Control Unit (OCU) that provides continuous data and video feedback for precise vehicle positioning.

TALON's payload and sensor options include: multiple cameras (color, black and white, infrared, thermal, zero light), a two-stage arm, gripper manipulators, pan/tilt, two-way communications, NBC (nuclear/biological/chemical) sensors, radiation sensors, UXO/countermine detection sensors, grenade and smoke placing modules, breaching tools, communications equipment, distracters and disrupters.

Specifications



Specifications

Standard Vehicle

- Footprint: 34 in. L x 22.5 in. W x 11 in. H (86.4 x 57.2 x 27.9 cm)
- Weight: 85 lb (39 kg) before mission configuration
- Speed: 6 ft/sec (1.8 m/sec) to creep
- Battery Life: 1 to 4 hr operational life (mission dependent)
- Amphibious Capability: 100 ft (30.5m) depth
- Video: Four integrated color cameras
- RF communication: 2W radio
- Payload Capability: 300 lb (136 kg)
- Pull Capability: 200 lb (91 kg)
- Three-axis compass
- Two-way communications
- Climbs various stair configurations
- Traverses 45-deg grade and lateral slopes
- Fits in compact car trunk
- Air transportable as “checked” baggage
- High flotation and traction for operations in soft sand, mud, snow and heavy brush
- RS-232 configuration interface
- Sensor attachment serial port

Master OCU

- 15 in. L x 19 in. W x 8 in. H (38 x 48 x 17 cm)
- Weighs 33 lb (15 kg)
- Small enough to carry on a commercial airliner
- Video and data antennas stow inside case
- Controls include
 - Proportional joystick and adjustable speed control for driving
 - Independent up/down for two arm stages and arm speed control
 - Flood light
 - Four- to eight- position camera selector
 - Gripper control (open/close)
 - “Stow Arm” switch brings arm back to home position
 - On/off video overlay for displaying distance traveled, compass heading, arm position, GPS location and battery voltage
- Splash-proof
- Day/night field operation
- 4-in. (10.2 cm) active matrix video display
- D8 VCR
- Output for VR goggles

- Auxiliary audio and video output
- RS-232 interface
- Accepts 5590U or equivalent battery (rechargeable/disposable)
- 4-hr run time
- Two-way communications

Wearable OCU

- Camouflage field vest
- VR goggles
- Handheld controller
- Built-in antenna mounts
- 4-hr run time
- NiMH (rechargeable) batteries
- Adjustable speed control
- 1 mile (1.6 km) line of sight operation



Master OCU



Wearable OCU

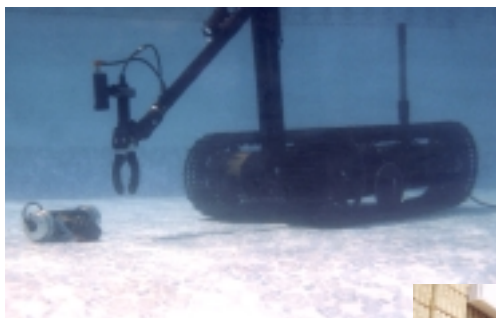
TALON Payloads and Options

Options

- GPS
- Narrow or wide tracks
- Remote-controlled zoom camera
- D8 VCR for box-type OCU
- Pan/tilt for arm
- Manipulator (custom)
- Fiber optic transceivers
- Fiber optic (automatic re-spool)
- Fiber optic (disposable spool)
- Disrupter mount (PAN, Proparms)
- Power saving sleep mode
- Submersible sonar, digital or video cameras
- Software algorithms for search and emergence
- Special shielding for thermal signature management
- Larger or smaller vehicle

Payloads/Sensors

- Two-stage arm
- Gripper manipulator
- Two-way communications
- Zero-light cameras
- Smoke dropping module
- Grenade dropping module
- Breaching tools
- Loudspeaker
- Distracter lights
- Fingerprint ID unit
- Zoom thermal camera
- IR thermal camera
- GEN III night vision
- NBC
- Radiation
- UXO/countermine



Underwater



All weather, all terrain vehicle



TALON is highly mobile



Pan/Tilt



Proparms disrupter mount

TALON in Operation



Firing PAN disrupter at an explosive device



Ready to perform in woodland terrain



Using Thiokol flare to render safe a mine



AT4 mounted on robot arm



Using multiple robots on mission in Bosnia



Sensor deployment and surveillance



Maneuvering a crate of unexploded devices with two-stage arm



Can be camouflaged for covert operations

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